

## P R O P. XVII.

*If rays of any one sort pass perpendicularly into several mediums, the intervals of the fits of easy reflexion and transmission in any one medium, is to those intervals in any other as the sine of incidence to the sine of refraction, when the rays pass out of the first of those two mediums into the second.*

This is manifest by the 10th Observation.

## P R O P. XVIII.

*If the rays which paint the Colour in the confine of yellow and orange pass perpendicularly out of any medium into Air, the intervals of their fits of easy reflexion are the  $\frac{1}{89000}$ th part of an Inch. And of the same length are the intervals of their fits of easy transmission.*

This is manifest by the 6th Observation.

From these Propositions it is easy to collect the intervals of the fits of easy reflexion and easy transmission of any sort of rays refracted in any Angle into any medium, and thence to know, whether the rays shall be reflected or transmitted at their subsequent incidence upon any other pellucid medium. Which thing being useful for understanding, the next part of this Book was here to be set down. And for the same reason I add the two following Propositions.

PROP.

*If any sort of pellucid medium be divided into two parts by a reflexion which the rays will still continue to pass through the same distances from the point of reflexion, the progression of the fits of easy reflexion and transmission between these fits of easy reflexion and transmission.*

For since the intervals of the fits of easy reflexion and transmission are of a certain length, why these fits, when the reflecting medium is divided by a reflexion, should not begin at the point of reflexion, and the progression of the fits must begin from the point of reflexion, 6, 8, &c. And the distances of the fits reckoned from the point of reflexion of the odd number happens when the rays are refracted.

*The intervals of the fits of easy reflexion and transmission, in any medium, are equal to the intervals of the fits of easy reflexion and transmission in the same rays in any other medium.*